# Special Care Interventions Medication Reference: Dopamine Hydrochloride (Intropin)

## Class

Sympathomimetic.

### Actions

- At low doses (less than 2 ug/kg/min).
  - Dilates renal and mesenteric blood vessels.
  - Venoconstricts.
  - Arterial resistance varies.
- At moderate doses (2 6 ug/kg/min).
  - Beta 1 stimulating effect on the heart increasing cardiac output.
- At high doses (6-10 ug/kg/min).
  - Alpha 1 effects.
  - Peripheral vasoconstriction including renal and mesenteric vessels.
  - Increases left and right ventricular preload.
- Doses greater than or equal to 10 ug/kg/min.
  - Alpha 1 stimulating effects may reverse mesenteric and renal. artery dilatation resulting in decreased blood flow.
  - Increased preload due to effects on venous system.

## Indications

- Cardiogenic shock.
- Hypovolemic shock with sufficient fluid resuscitation.
- Septic shock.
- Anaphylactic shock.

### Protocol Reference

B2, B6, D2, D4, P8



## **Contraindications**

- Hypovolemia without aggressive fluid replacement.
- Pre-existing tachydysrhythmias.
- Pheochromocytoma (adrenal tumor which causes excessive release of epinephrine and norepinephrine.

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## **Precautions**

- Should not be administered in the presence of severe tachyarrhythmias.
- Should not be administered in the presence of ventricular fibrillation.
- Ventricular irritability.

## Adverse Reactions

- Tachydysrhythmias.
- Hypertension.
- Anginal pain.
- Undesirable degree of vasoconstriction.
- Nausea and vomiting.

# Adult Dosage / Route

- For IV Infusion Only.
- In general, infusion rate is adjusted to the blood pressure and clinical response.
- Administer 2-20 ug/kg/min IV drip titrated to blood pressure of 100 systolic or medical consultation selected blood pressure.
- Initial infusion rate 2-5 ug/kg/min.

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## Pediatric Dosage / Route

- For IV Infusion Only.
- In general, infusion rate is adjusted to the blood pressure and clinical response.
- Administer 2-20 ug/kg/min IV drip titrated to age specific blood pressure or medical consultation selected blood pressure.
- Initial infusion rate 2 ug/kg/min.

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